

Advancing DR in MRTU and Beyond
Notes from May 15th, 2007 Meeting
(Preliminary Draft)

Meeting Objectives

- Discuss ideas and attempt to reach agreement on the basic process to advance DR in MRTU
- Identify next steps to move the process forward, both in the short-run and over time
- Pursue “early success” opportunities to learn from and cement processes
- Discuss due process and public notification
- Make sure we come out with a schedule for moving forward.

Introductions and Discussion Of What Each Person Would Most Like to See Accomplished Today

- John Goodin (CAISO)—Works on resource adequacy (RA) and DR. Wants to walk out with a common understanding regarding the process going forward. How to tackle DR integration from a process perspective.
- Margaret Miller (CAISO)—Works with John and Anjali in market development. Had worked on MRTU technology upgrade. Was in the weeds of implementation of MRTU. Wants to gain a better perspective on the big picture for DR going forward. Will work with John to keep design moving forward on next release of MRTU.
- Ken Abreu (PG&E)—DR planning and policy at PG&E. Looking to come out of meeting with specific, concrete next steps to move process forward. Momentum to accomplish things.
- David Reed (SCE)—Has been in the DR area for 8 years. Responsible for regulatory filings and integration. Ditto what’s been said before. Wants recognition of the role of the customer in this process. We need to keep customers and aggregators in DR integration.
- David Schiada (SCE)—Works in Power Regulation group (energy supply and management). Policy and tariff related issues, RA, MRTU, etc. Need to try to translate MRTU world to DR world. Wants to understand the process going forward—ISO stakeholder process versus state CPUC DR OIR process.

- Muir Davis (SCE)—DR integration into wholesale operation. Has been in role for 3 years. Wants to focus on objective—DR able to participate in MRTU as a load modifier or participating load and also as a supply resource.
- Steve McCarty (PG&E)—Director of DR at PG&E (for two weeks—a brand new department). Policy, planning and programs. Echo previous remarks. Process going forward and critical next steps. Build on momentum that exists.
- Brian Hitson (PG&E)—In the ISO and FERC sections of PG&E. Interested in seeing if we can get a better definition of FERC, ISO and CPUC rolls so we can get portfolios of DR that can deliver lowest overall cost to consumers.
- Chris Fun (PG&E)—First day on the job. Wants to gain understanding of DR. Had previously worked on Smart meter project.
- Natalie Walsh (CPUC)—Manager of EE and DR. Glad the ISO is leading the way forward on MRTU. Wants to get stakeholder process so DR will be counted. Wants to see process move forward. There is the CPUC rulemaking on DR but is encouraged by this process. Has a question about due process and public notification. If this is an ISO stakeholder process, it's easier for CPUC to participate. Wants to make smooth transition from utility programs to what's needed for wholesale market. Wants to move the ball forward.
- Chris Villarreal (CPUC) —Division of Strategic Planning. Been there for a year. Working on DR for six months. Wants to get a sense of how to work around the jurisdictional issues between CPUC, CEC, FERC, etc.
- Joe Como (CPUC)—Attorney. Been working on DR since joining the Commission 8 months ago. Wants to agree on process going forward. Wants to identify end states—MRTU R1, MRTU R2 and beyond R2. Determine where we want to go and what barriers there are to getting there.
- Jason Klotz (CPUC)—Works with Bruce Kaneshiro and standing in for Bruce who is on vacation. Has been with the CPUC for 3 months. Wants to see quality discourse on (I didn't get the rest of the sentence?)
- Anjali Sheffrin (CAISO)—Has been with the ISO since start up. She is the closer on MRTU and now the starter on DR. Focused on new release of MRTU 1a twelve months after first release. Need to get rules designed for MRTU. Wants to understand IOU needs regarding what they want MRTU to do. DR, convergence billing, scarcity pricing are part of MRTU R1. Second release is in part about getting MRTU to better handle DR.
- Elaine Siegel (CAISO)—Compliance Auditor. Wants to get a better understanding of DR with respect to metering and settlement.

- Glen Perez (CAISO)—With the ISO since start up. Working with DR since the energy crises. Echo all previous items. Would like to see progress on the common language around DR.
- Dan Ozenne (SDG&E)—Regulatory Policy group. Recently in federal and ISO group. Jurisdictional concerns—what are we doing at ISO versus what have to do a CPUC. Keen interest in making sure that we keep customer perspective in mind as too many DR programs ignore what customers are willing to do. Questions the willingness of the CPUC to push wide spread time varying pricing.
- Ann Segestrom (PG&E)—In the portfolio optimization group at PG&E. Put in bids of load and demand for merchant side of house. Does short term load forecasting. Would like to see how we can put existing IOU DR programs into first release of MRTU. Longer term we want to see what common ground we can come up with as we design new programs for DR and how we can fit them into ISO world. Want to understand what is needed.
- Athena Besa (SDG&E)—Energy Efficiency Administration and Policy Manager—implements policy with respect to program design and regulatory reporting. Wants to improve her understanding of MRTU so can integrate and design better DR programs. Likes the timing of this collaborative so that we can make some changes for 2008 programs. Wants to design programs that work upfront rather than fix them after the fact.
- Mark Gaines (SDG&E)—Director of Customer Programs. Wants to focus on process as well as potential end states. Worries that DR is trying to sell discomfort and inconvenience to customers and that's hard to do.
- Laura Manz (SDG&E)—Has been working on this stuff for 25 years (two years at SDG&E). Goal is to not reinvent the wheel.
- Pat McAuliffe (CEC)—Wants some kind of long range vision of where we are headed here. Would like to reach consensus on that vision.
- Mark Martinez (SCE, on the phone)—one thing that's important is to not double count. Have wholesale market, retail market, ISO market. Let's get some efficiency and not double or triple procure resources.

Brief Overview of DR Treatment in MRTU

John Goodin walked through a table and graphs indicating how participating and non-participating load can operate in the current configuration of MRTU.

John began by sharing an article from Platts summarizing a recent meeting between PJM and stakeholders concerning DR. The article indicated that various stakeholders had quite different ideas and perspectives about DR and its role in PJM. John suggested that

this was clear evidence that even those markets that are well established and perceived to be further down the line are all asking the same questions and dealing with similar issues around DR. Not everyone describes DR the same way—no single language. 45 action items were discussed in the article and 9 priority items identified. One priority was to develop a common, regional approach to DR. Another was to integrate wholesale with complex retail prices. The point is, it all sounds so familiar. Even these advanced markets are struggling with the same or very similar issues. John suggested that, in some ways, we are pretty far along compared with other regions—we have a lot of DR and have a lot of experience.

John handed out a table showing how DR contributes in ISO markets. DR can contribute in 3 ways—reduction to the day-ahead demand forecast; provide reliability services; provide emergency response. The rows of the table listed a number of attributes such as whether the resource met RA adequacy requirements, bidding, scheduling procurement, dispatch, coordination, settlement and limitations imposed under MRTU R1 and MRTU R1a.

Reduction to demand forecast— The first two columns in the table delineated between “bid-in demand” for non-participating load (NPL) and participating load (PL).

Reliability Services—The next two columns in the table listed non-spin and imbalance energy (both participating load)

Emergency response—the final two columns in the table listed “alert or warning” and emergency (both non-participating load)

Participating versus non-participating load—Participating load looks and feels like a generator. It has all the attributes of a generator. NPL does not—it’s in day ahead time frame and putting in a price sensitive demand curve. John indicated that participating load is “where we need some help.” Release 1A is not done. PL is when the DR looks much like a generating resource—it can participate all the way up to real time. Load drop rate. Load pickup rate. Minimum load reduction cost, etc. We need to sit down with a group of techies to start hashing out and getting to a common technical understanding of how to make this work. A possible working group.

Comment—need to distinguish between economic versus reliability DR. Need to get clarity on what is strictly emergency/reliability versus what is economic. Another possible working group.

John introduced two graphs depicting how PL and NPL can operate in the IFM (stands for integrated forward market). For NPL, he assumed a 5 MW customer with 3 MWs that were “must take” and therefore not price sensitive but where the fourth and fifth MW loads would only be used (or not used) depending on the price. That is, this customer had flexible demand for the fourth and fifth MWs. John indicated that, if these loads are in the day-ahead market with demand bidding, it’s just a price sensitive demand curve. Is this really DR? After some discussion, Ken suggested that this issue is a top of the list

topic. We need to decide what is and what is not counted as DR. Laura suggested that all of this should be counted as DR.

David Schiada—an example of a future discussion. What are rules for RUC commitment in MRUT R1? What are the rules for DR? Need to understand how it's going to work day 1 without changing any programs. This is different from program design and MRTU design for R2 (or R1a).

Anne—what are the requirements for PL. Telemetry, metering, etc.?

John/Anjali indicated that there are requirements for the existing participating load program (which right now is all pumps) on the CAISO web site. They are currently discussing how to modify requirements so they are not as onerous as the requirements are today. It's done back east so we know it can be done in order to get more participation of smaller and disaggregated loads. Need to satisfy operational folks and ultimately get settlements data.

What Is The Appropriate Process for Advancing DR in MRTU?

The final discussion before lunch was focused on process—how best to make progress toward issue identification and resolution.

John—Proposed a straw dog of moving forward through working groups. Can't resolve technical issues through an ISO stakeholder process that welcomes all. ISO LSAG (Local Area Study Advisory Group or something like that) is a good example of something that worked well. Subject matter experts with unique experience and backgrounds. But it was representative of all stakeholders. John also indicated that whatever process is used, individuals involved need to be empowered to speak for the organizations they represent.

Laura—Thinks the process will only work if there is a context for it and you can't do the techie stuff unless you have a stakeholder process. Need a framework that is temporal. Needs to role up into a context.

Pat—there are plenty of stakeholder processes already. Multi-agencies. Working groups could be cross cutting and work across multiple processes.

Ken—let's get to real topics that need to get done.

Brian—supports Ken's perspective.

Joe—can't avoid the stakeholder process that ISO runs. Trying to solve a fundamental problem at the wholesale level that FERC has decided. But we need a stakeholder process that has subgroups but participants have to self select where they want to go so no one feels left out. It's inevitable that there are other processes running in parallel but let's just live with this.

David Hungerford—What does FERC require of the ISO in terms of notice, inclusiveness, etc. John—There are no FERC requirements in this regard. Other than the CPUC DR OIR, there aren't any requirements.

Ken—maybe we can just figure out how to get things done and then decide where it funnels into existing processes.

Joe—seemed to agree with Ken (but the note taker is not absolutely sure on this point).

Laura—the only impetus we have is that the CPUC says we want to make DR work with ISO. The only thing that has a deadline.

John—We want to bring everything up to same level.

Anjali—We are not trying to change MRTU R1 at all but we need to discuss how to communicate and coordinate DR resources better so DR can fit into the existing rules. How can the existing MRTU rules be interpreted (where flexibility exists) so existing DR can be used and useful?

How to Organize Issues to be Addressed

Following lunch, participants were organized into company/organization groups and given about 30 minutes to develop a list of issues to be addressed. Each group was asked to identify up to five issues but they could establish priorities by placing more than one vote on an issue. Following this exercise, each group was asked to post their issues on a timeline delineating three periods: Issues that need to be addressed (or at least worked on) prior to MRTU Release 1 (2/1/08); issues to be addressed prior to MRTU Release 1a (2/1/09); and issues to be addressed beyond 2/1/09. Once the issues were posted by each group, a lengthy discussion ensued regarding whether issues were distinct or simply worded differently. The discussion also focused on which issues might be best addressed through a common working group.

The initial list of issues is delineated below according to the time periods in which they were posted. During the ensuing discussion that led to the development of six issue groups, each of which will be addressed by a working group, some issues were moved forward in the timeline with the understanding that these issues would need to be addressed at several stages along the way and would ultimately evolve.

Release 1—2/1/08

- DR in MRTU
- Role of aggregators
- Incorporation of existing DR programs into MRTU (operations and communications bidding)
- 2 votes--Account for expected DR under MRTU—no double payments

- Produce guide on how existing DR programs will participate in MRTU in release 1—communication of decisions about how it's going to work
- 2 votes--Some discussion of ultimate end state
- Common vision for DR in CA that serves needs of customers, providers(aggregators, developers), regulatory agencies, grid operators
- 3 votes for RUC—limit double counting of IOU DR with CAISO procurement
- Education and common understanding of R1 MRTU functionality and how to operationalize existing programs
- How do the current DR programs work within MRTU
- Recalibrate DR goals—When do you have enough? What should count and not count?

Release 1A—2/1/09

- Linking wholesale and retail markets—Pat M. Triggering price responsive programs by a wholesale market price
- DR functionality—needs met with software functionality
- Complete the policy modifications for DR in MRTU R1A so can be ready for filing with FERC
- Role of aggregators
- Timeline integration MRTU/DR (scheduling) R1 and R1A--(bid term order priority—MRTU is supply centric—let's make it more DR centric)
- Develop ultimate end state for how DR should work in MRTU—how to develop DR programs for 2009-2011
- 2 votes—wholesale price responsive DR to be developed and implemented
- Linking MRTU price signals to customer response
- DR product specification to meet CAISO needs
- Explore additional ancillary services and qualifying products
- More automation of DR under MRTU wholesale side
- Develop a customer education program to understand price responsive benefits—does it belong here or in some other proceeding—it's important but not sure it should be a major focus of this group

Subsequent releases (post 2/1/09)

- Tools to visualize grid—some kind of mapping thing that we can click on and see what's going on (prices, congestion, etc.—beyond DR but includes DR)—John—What data do users want to make DR work better.
- End state vision

- Integrate wholesale market prices and retail tariffs---evolution versus revolution

From the above issue list, six issue groups were formed and named. The six groups are summarized below:

Vision Group

End state vision (several votes)

Role of aggregators (2 votes)

Common vision for DR in CA that serves needs of customers, providers (aggregators, developers), regulatory agencies, grid operators

Recalibrate DR goals—When do you have enough? What should count and not count?

Develop ultimate end state for how DR should work in MRTU—How to develop DR programs for 2009-2011

Develop a customer education program to understand price responsive benefits (See note above regarding whether this should be addressed through this working group process or in some other venue)

MRTU Release 1 Group

How do the current DR programs (2007 – 2008) work within MRTU R1 and how are they (or can they) accounted for (multiple entries, with many indicating a focus on avoiding double procurement of resources)

Produce a guide on how existing DR programs participate in MRTU R1

Education and common understanding of MRTU R1 functionality and how to “operationalize” existing programs

MRTU R1a Rules and Design Group

Linking wholesale and retail markets (triggering price responsive programs by a wholesale market price)—Note that discussion ensued that this is ultimately a retail tariff issue that can only be addressed by the CPUC.

Timeline integration MRTU/DR (scheduling) R1 and R1A--(bid term order priority—MRTU is supply centric—let’s make it more DR centric)

DR functionality—needs met with software functionality

Complete the policy modifications for DR in MRTU R1a so can be ready for filing with FERC

Product Specification Group

Explore additional ancillary services and qualifying products

DR product specification to meet CAISO needs

Infrastructure Group

Linking MRTU price signals to customer response
More automation of DR under MRTU wholesale side

Subsequent Issues Group

Tools to visualize the grid (supply, demand, transmission, etc.)
Integrate wholesale market prices and retail tariffs—evolution versus revolution
(Note: This is also covered under vision group)

Several comments, summarized below, were made subsequent to the grouping process.

Joe—Should the policy stuff be in a stakeholder group and all the other stuff be in working groups? Points out that we don't necessarily have all the stakeholders in this meeting today.

Anjali—CAISO posts public notices on the CAISO web site about WG meetings that are set, presentations given, etc. This may be all that is needed in terms of noticing and stakeholder appeals. Natalie endorses this idea. There was general agreement that at least some groups must have involvement of aggregators and customer representatives in order to be effective.

David Hungerford—Utilities propose rates, the CPUC approves rates. Utilities should begin to consider linkages with wholesale when they propose rates.

The CAISO suggested as a next step that the process and working groups agreed to today be announced publicly at the June 6th Market Surveillance Committee Stakeholder Meeting. Volunteers were solicited for each group to take responsibility for developing a brief summary of the purpose and focus of each of the six working groups that would be presented at the meeting. The lead person and participants who volunteered for each group are shown below. Draft summaries are due to be circulated by close of business next Tuesday, May 22nd:

- Vision Group: Anjali is lead; Joe C., Dan O., David H., Ken A
- MRTU Release 1 Group: Margaret is point; David S., Pat M., Ken A.
- MRTU R1a Rules and Design Group: Margaret is lead; Muir D., Bruce K.
- Product Specification Group: Pat M. is lead; Glenn P., David R., Elaine Siegel (CAISO)
- Infrastructure Group: Ken A. is lead; Ann S., CEC (to be named)
- Subsequent Release Issues Group: No one assigned.